

The Industry Association of Building and Property Inspectors in WA – Inspect WA		
Position Paper 02.2019 Elevated moisture levels in masonry and concrete walls		
Subject	Elevated moisture levels in masonry and concrete walls – Impact on the structural integrity of a residential property when inspected and reported on within the context of a Pre Purchase Building Inspection conducted within the terms of AS 4349.1	
Association Position	Elevated moisture levels in masonry and concrete walls alone is not considered to be structural defect within the terms of a structural defect within the context of a Pre Purchase Building Inspection conducted within the terms of AS 4349.1 and as such within the ordinary course of pre purchase building inspections should not be reported as such.	
Date Preparation Commenced	July 2019	
Date Provisional Approval by Committee for Release to Members for Comment		
Final Approval by Committee and Release to Members		
Why was the Paper Released	Concerns within the Association were raised that elevated moisture levels in external and internal masonry and concrete walls were being listed as a structural defect by some WA Building Inspectors	
Key Definitions	Masonry wall	Masonry is the word utilized for development with mortar as a coupling material with singular units of blocks, stones, marbles, rocks, solid squares, tiles, and so forth. Mortar is a blend of restricting material with sand. Restricting materials can be concrete, lime, soil or any other constructing materials.
	Concrete wall	Walls constructed of concrete and steel in which steel is embedded in such a manner that the two materials act together in resisting forces. The reinforcing steel—rods, bars, or mesh—absorbs the tensile, shear, and sometimes the compressive stresses in a concrete structure. In reinforced concrete, the tensile strength of steel and the compressive strength of concrete work together to allow the member to sustain stress over considerable spans.
	Permeable masonry and concrete walls	Both masonry and concrete walls are permeable. Moisture will pass through these structures and can be retained by the structures if a natural exit point is not available and the source of moisture is repetitive.
	Structural	Physically distinguishable part of a structure.

	element AS 4349.1	NOTE: For example wall, columns, beam, connection
	Structural Defect as defined by REIWA Australian Standard pre- purchase structural inspection condition	"Structural Defects" means a fault or deviation from the intended structural performance of a building element and is a major defect to the building structure of sufficient magnitude where rectification has to be carried out in order to avoid unsafe conditions, loss of utility, or further deterioration of the building structure. Structural defects do not include any non-structural element, e.g., roof plumbing and roof covering, general gas, water and sanitary plumbing, electrical wiring, partition walls, cabinetry, windows, doors, trims, fencing, minor structures, non-structural damp issues, ceiling linings, floor coverings, decorative finishes such as plastering, painting, tiling etc, general maintenance, or spalling of masonry, fretting or mortar rusting.
	Scope of Inspection AS 4349.1 Appendix A Pere Purchase Structural Inspection	A3 SCOPE OF INSPECTION The inspection shall comprise visual assessment of accessible areas of the property to identify major defects to the building structure and to form an opinion regarding the general condition of the structure of the property  NOTE: The structural report should not contain any assessment or an opinion regarding the following:  (e) Serviceability damp defects such as condensation, rising damp, lateral damp, falling damp should only be assessed and reported on where structural damage has occurred, is occurring, or may occur (e.g., fungal rot) significant spalling of masonry or concrete structural elements, significant fretting or mortar, rusting of primary structural elements. Stormwater drainage and surface water defects commonly cause or exacerbate foundation instability and these issues should be assessed and reported on where relevant.
	Safety hazard AS 4349.1	The report shall identify any observed item that may constitute a present or imminent serious safety hazard.
Key Conclusions	<ol style="list-style-type: none"> <li>1. Masonry and concrete walls will absorb water through capillary action. The water/moisture may be drawn into the walls from a variety of sources.</li> <li>2. Moisture in a masonry or concrete wall is not necessarily a defect and is not a structural defect in its self.</li> <li>3. Moisture in a masonry or concrete wall may contribute to fretting bricks, fretting mortar and or concrete cancer. In extreme circumstances these resultant defects may be a structural defect but the moisture in the wall, while a key contributing factor, is not the structural defect.</li> <li>4. Masonry and concrete walls in itself should will should not be reported as a major structural defect</li> </ol>	

Additional Observations	<ol style="list-style-type: none"> <li>1. In extreme circumstances moisture in a masonry or concrete may be reported as a major non-structural defect</li> <li>2. Moisture in a masonry or concrete wall may contribute to the growth in mold and this may be a safety issue in extreme circumstances.</li> <li>3.</li> </ol>
Additional Notes	

Signed Chairman

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